## **Landscape Relationships:**

Falls Dam Slope occurs on the Yadkin River shoreline, just upstream and on the opposite side of the river from Morrow Mountain State Park. This is the headwaters of Lake Tillery and a small portion of the natural shoreline is not impounded by the lake. Since this site occurs on the shoreline, it occurs within the Pee Dee Bald Eagle Forging Habitat identified by the North Carolina Natural Heritage Program. Two other sites occur along the Yadkin River. Tuckertown Swamp Forest occurs upstream, along the shoreline of Badin Lake. Tuckertown Swamp Forest is disjunct from the standard sites in the Badin Mafic Macrosite, thus, is a stand alone site. Yadkin River Scour Banks occurs upstream, at the base of the Badin or Narrows Dam.

## **Description of Natural Communities and Rare Plant Populations:**

Falls Dam Slope supports numerous rare plant populations and exemplary natural communities. The numerous natural communities on this site includes a Piedmont Monadnock Forest, Piedmont Heath Bluff, Dry Oak-Hickory Forest, Basic Oak-Hickory Forest, and Piedmont Mafic Cliff. The upland slopes vary in quality from mature hardwood trees to pine plantations. There are several steep, rocky slopes that border the Yadkin River and perennial tributaries.

The canopy of the Piedmont Monadnock Forest is dominated with Quercus montana (Chestnut oak). Other canopy trees include Quercus alba (White oak), Quercus coccinea (Scarlet oak), Quercus velutina (Black oak), Quercus marilandica (Blackjack oak), Quercus stellata (Post oak), Carya glabra (Pignut hickory), and Pinus echinata (Short-leaf pine). The canopy dominance in the Dry Oak-Hickory Forest shifts from Quercus montana (Chestnut oak) to Quercus alba (White oak). Oxydendrum arboreum (Sourwood) is the most abundant understory tree and Vaccinium arboreum (Sparkleberry) is the most abundant shrub. Herbs are sparse in both the Dry Oak-Hickory and Piedmont Monadnock Forest communities. In contrast, the Basic Oak-Hickory Forest supports a diversity of herbs including Schizachyrium scoparium (Little bluestem), Aster undulatus, Aster spp., Solidago petiolaris, Cheilanthes lanosa, Cheilanthes tomentosa (Woolly lip-fern), Clematis viorna, Phaseolus polystachios, and Seymeria cassioides. The federally endangered sunflower, Helianthus schweinitzii (Schweinitz's sunflower), also occurs in the Basic Oak-Hickory Forest.

A one acre Piedmont Mafic Cliff borders a perennial tributary of the Yadkin River. It occurs on a steep, south facing slope with 25% rock exposure and extensive shallow soil. A well-developed herb layer of grasses is dominated with <u>Schizachyrium scoparium</u> (Little bluestem). Other herbs include <u>Stylosanthes biflora</u> (Pencil flower), <u>Hypericum gentianodes</u> (Pineweed), <u>Aster pilosus</u>, and others. A sparse canopy of small trees is present and is dominated with <u>Ulmus alata</u> (Winged elm). Other tree species include <u>Fraxinus americana</u> (White ash), <u>Carya glabra</u> (Pignut hickory), <u>Pinus virginiana</u> (Virginia pine), and <u>Chionanthus virginicus</u> (Fringe-tree). The shrub layer is sparse.

Numerous rare plant populations occur on the Falls Dam Slope site (see above list under Significant Factors). The steep slopes and shallow soil limit the establishment of large trees and creates canopy gaps. These canopy gaps provide habitat for rare plants that require sunlight for successful